

## Distributional Characteristics of Plants in Hajo Island of Jeollanam-do, South Korea

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**Abstract:** This study investigated the plant distribution in Hajo Island, Jodo-myeon, Jindo-gun, Jeollanam-do, South Korea. The surveyed plants were recorded as total 483 taxa, 100 families, 298 genera, 427 species, 1 subspecies, 52 varieties, and 3 forms. Total 1,360 pieces were obtained as evidential specimen. Through floristic survey and collection in Hajo Island, Jodo-myeon, Jindo-gun, Jeollanam-do, 1,360 items of specimen were obtained. Based on the specimen, the flora in Hajo Island included total 483 taxa, 100 families, 298 genera, 427 species, 1 subspecies, 52 varieties, and 3 forms. The investigation was carried out based on mountains (Mt. Dondaebong, Mt. Songarak, and Mt. Singeum), reservoirs (Jodo reservoir, Yukdong reservoir), Hajodo lighthouse, and Jodo bridge. In particular, rare plants designated by Korea Forest Service were recorded as 12 taxa such as *Glochidion chodoense*, *Crypsinus hastatus*, *Celtis choseniana*, *Ardisia crenata*, *Millettia japonica*, etc. Endemic plants were recorded as 3 taxa such as *Hepatica insularis*, etc. Special plants over 3rd degree designated by the Ministry of Environment were recorded as 31 taxa such as *Litsea japonica*, *Kadsura japonica*, *Raphiolepis indica* var. *umbellata*, *Verbena officinalis*, *Stauntonia hexaphylla*, etc. Naturalized plants were recorded as 31 taxa, accounting for 6.4% of the total, such as *Physalis angulata*, *Aster subulatus*, *Euphorbia supina*, *Chenopodium ambrosioides*, *Bromus unioloides*, etc.

**Keywords:** Jindo-gun, Hajo Island, plant distribution, rare plant, endemic plant, specially designated plants by the Ministry of Environment, naturalized plants

### Introduction

Jodo, located in Jodo-myeon, Jindo-gun, Jeollanam-do, South Korea, belongs to Dadohae National Park and consists of 154 islands (35 inhabited islands and 119 uninhabited islands). The area of Jodo is 57.00 (The history of Jindo edit a commission 2007).

Geographically, it is located at north latitude of 34°18' and east longitude of 126°04'. The area is 10.89. Hajo Island is 10 km away from the south of Jindo and it is 0.7 away from Sangjo Island. Mt. Singeum (230 m), Mt. Songarak (230.8 m), and Jodo reservoir lies to the east of Hajo Island. Mt. Dondaebong (271 m) and Yukdong reservoir are located in the west. Jodo bridge linking Sangjo Island lies to the southwest. In the southeast, Hajodo lighthouse is located with its 100-year history.

The soil in Hajo Island is reddish yellow (Kim and Kil, 2000). With regard to phytogeography, Hajo Island belongs to the South Sea subregion among the eight subregions in Korea (Lee and Yim, 2002). In this area, plants as evergreen broad-leaved forest zone in Korea, such as *Castanopsis sieboldii* and *Ligustrum japonicum*, are distributed. In the

south and west coast of Hajo Island, the intertidal zones are widely distributed. Along the seashores facing to the south and northwest of the island, high abrasion platforms are well-developed. Currently, most of shallow sea tidelands are reclaimed to be used as farmlands. The climate of Hajo Island shows a cycle of three cold days and four warm days periodically because it sometimes falls down below zero in winter due to the northwest areas facing northwest monsoon in winter. The annual average temperature is around 13-14°C. In August, which is the warmest month, the average temperature is 25-26°C. The average temperature in January is 1-3°C. This area has relatively large amount of precipitation and is characterized as monsoon climate with heavy rainfalls in summer. The annual average precipitation is about 1,200-1,500 mm. As an island region, Hajo Island has large amount of precipitation with sufficient water supply influenced by the sea (The history of Jindo edit a commission, 2007).

With regard to the previous researches on the flora in Jodo-myeon, Jindo-gun, Jeollanam-do, Kim *et al.* (1984) reported 277 taxa and Park (2004) investigated the flora of the west and south coast areas including 32 islands. Of those, the flora in Hajo Island was reported as 138 species. In addition, Kim and Oh (1990) conducted phytosociological research for evergreen forests in Dadohae National Park, focusing on the vegetation of Jodo Islands. Kim and Oh

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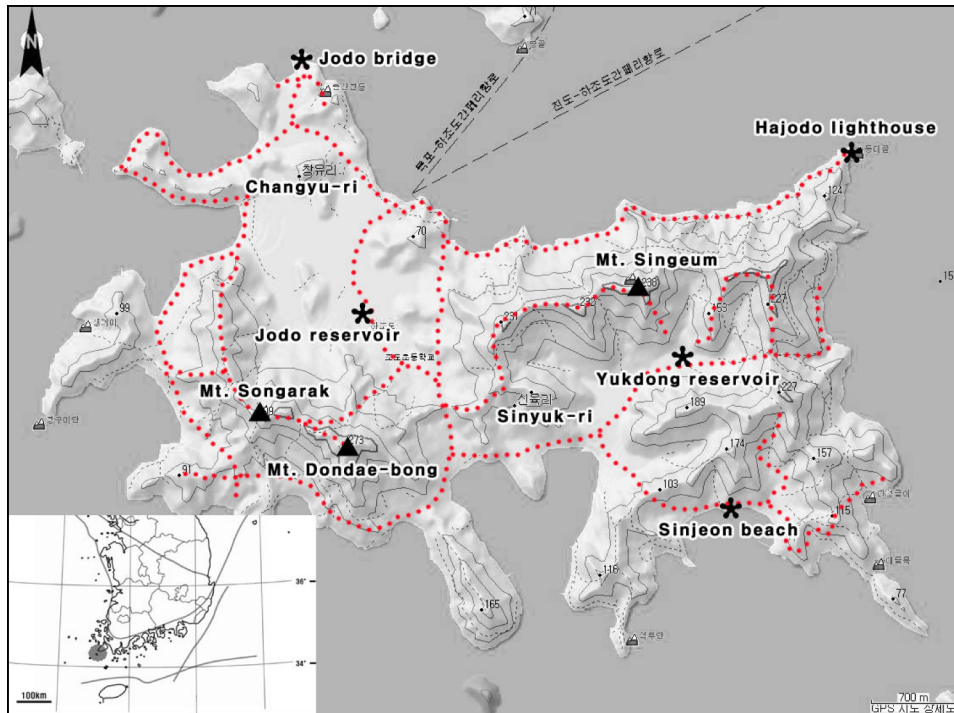


Fig. 1. Map of investigated area in this study.

(2010) researched the distributional characteristics of the naturalized plants in Dadohae National Park. Nevertheless, most data have been limited to a few areas of Hajo Island and any overall survey of distribution has not been conducted. Even the data is not sufficient due to the fact that most results had been based on records without empirical evidence of specimen. Therefore, this study investigated the overall areas of Hajo Island and empirically obtained the evidential specimen, of which data can be used as crucial resource for the phytodiversity in Hajo Island, Jodo-myeon, Jindo-gun. Thus, the obtained specimen from the overall areas of Hajo Island can be used as the fundamental resources not only for the flora in Hajo Island, but also for the further study on the phytodiversity and distribution in southwestern island areas centered around Jindo.

### Research Method

This study conducted onsite investigations for the flora in Hajo Island, Jodo-myeon, Jindo-gun, Jeollanam-do in June, August (2010) and in March, April, July, and September (2011) (Fig. 1, Table 1). For the accurate results, only individuals having reproductive organs such as flowers, fruits, and spores were collected. Any individuals in immature stage or without reproductive organs were selectively recorded only for those which could be accurately identified. The collected plants were manufactured as exsiccata or immersion specimen and preserved in the National Herbarium & Seed Bank, Korea National Herbarium (KH). The identification of taxa was based on the illustrated guides offered by Lee (1980, 2003),

Table 1. Investigation dates and routes.

| Date        | Routes Hajo Island of Jeollanam-do, Korea  |
|-------------|--|
| 10. Jun. 06 | Mt. Dondae-bong -Mt. Singeum   |
| 10. Aug. 31 | Mt. Dondae-bong  |
| 11. Mar. 30 | Mt. Songarak nearby  |
| 11. Apr. 27 | Mt. Dondae-bong -Hajo Isl. of nari village near the ocean nearby -Mt. Songarak   |
| 11. Apr. 28 | A) Mt. Dondae-bong -Hajo Isl. <i>Camellia japonica</i> forest -Jodo-reservoir -Hajo Isl. of sancho village<br>B) Hajo Isl. lighthouse -Hajo Isl. lighthouse near the ocean nearby -Mt. Singeum |
| 11. Jul. 26 | Moraegae beach of marshy land nearby -Moraegae beach of marshy   |
| 11. Jul. 27 | A) Mt. Dondae-bong Hajo Isl. of the ocean -Mt. Songarak Jodo-bridge nearby beach -Sinjeon beach side trail<br>B) Moraegae beach nearby -Jodo-bridge nearby beach -Sinjeon beach side trail     |
| 11. Jul. 29 | Sinjeon beach nearby -Yukdong-reservoir  |
| 11. Sep. 06 | Sinjeon beach of marshy -Jodo-bridge in the lower part of reservoir nearby   |
| 11. Sep. 07 | Mt. Dondae-bong -(the old days) health center side of Mt. Dondae-bong entrance   |

Park (1995, 2001, 2009), and Lee (1996a, 1996b). Any special plants were based on specially designated plants by the Ministry of Environment (2006). Endemic plants were based on Oh *et al.* (2005). Rare plants were based on Korea national Arboretum (2008).

**Result**

**Summary of the floristics**

The surveyed plants in Hajo Island were recorded as total 483 taxa, 100 families, 298 genera, 427 species, 1 subspecies, 52 varieties, and 3 forms. By taxa, pteridophyte included 35 taxa, 10 families, and 21 genera; gymnosperm included 6 taxa, 3 families, and 5 genera; of angiosperm, dicotyledoneae included 323 taxa, 76 families, and 204 genera and monocotyledoneae included 119 taxa, 11 families, and 68 genera (Table 2).

Generally, evergreen broad-leaved trees were dominant, such as *Camellia japonica*, *Castanopsis sieboldii*, *Ligustrum japonicum*, *Cinnamomum japonicum*, etc. In particular, Mt. Dondaebong areas showed diverse vegetation. In Mt. Singeum areas, *Camellia japonica* was clustered widely along the slopes in the mountain ridges. Moreover, in Sinjeon-ri areas, evergreen forests consisting of *Castanopsis sieboldii*, *Machilus thunbergii*, *Cinnamomum japonicum* were developed.

**Endemic plants**

Korean endemic plants identified in this study were recorded as total 3 taxa, 3 families, and 3 genera, such as *Hepatica insularis*, *Glochidion chodoense*, and *Hosta yingeri* (Table 3). As *Glochidion chodoense* grew around the farmlands or roadsides, it is considered to be managed properly (Fig. 2, Table 3).

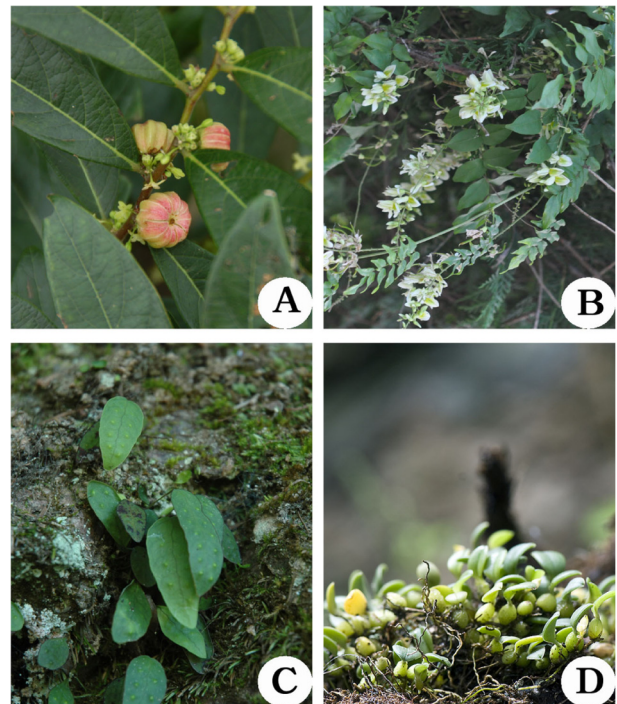
**Rare plant**

Rare plants designated by Korea Forest Service were recorded as total 6 taxa, 5 families, and 6 genera: 3 taxa of CR (Critically Endangered) (e.g., *Glochidion chodoense*, *Bulbophyllum drymoglossum*, etc.), 2 taxa of EN (Endangered) (e.g., *Hosta yingeri* and *Bulbophyllum inconspicuum*), 4 taxa of VU (Vulnerable) (e.g., *Pyrrosia hastata*, *Millettia japonica*, *Ardisia crenata*, etc.), and 3 taxa of LC (Least Concerned) (e.g., *Crypsinus hastatus*,

*Celtis choseniana*, etc.). As for other planted species, *Thuja orientalis* and *Hibiscus hamabo* were recorded (Fig. 2, Table 4). *Millettia japonica*, vulnerable species in this area, was distributed around the farmlands from Sinjeong beach to Hajodo lighthouse. *Hibiscus hamabo*, which was initially planted only in Sangjo Island, were largely planted from Jodo bridge in Changyu-ri to Jodo reservoir, probably influenced by Jodo bridge. *Crypsinus hastatus*, least concerned species, was evergreen epiphyte. It was observed that this plant grew by being attached to the shaded rock along the seashore around Hajodo lighthouse.

**Specially designated plants**

The flora of specially designated plants were recorded as total 93 taxa, 48 families, 78 genera, 86 species, and 7 varieties: 6 taxa of 5th degree (e.g., *Crypsinus hastatus*, *Millettia japonica*, *Bulbophyllum drymoglossum*, *Bulbophyllum inconspicuum*, etc.), 5 taxa of 4th degree (e.g., *Arachniodes aristata*, *Glochidion chodoense*, *Sigesbeckia orientalis*, etc.), 20 taxa of 3rd degree (e.g., *Stauntonia hexaphylla*, *Vaccinium bracteatum*, *Sanicula tuberculata*, etc.), 3 taxa of 2nd degree (e.g., *Caryopteris*



**Fig. 2.** A. *Glochidion chodoense* J.S.Lee & H.T.Im, B. *Millettia japonica* (Siebold & Zucc.) A.Gray, C. *Crypsinus hastatus* (Thunb.) Copel., D. *Bulbophyllum inconspicuum* Maxim.

**Table 2.** Summary on the floristics of Hajo Island of Jeollanam-do, Korea

| Taxa           | Fam. | Gen. | Sp. | Subsp. | Var. | For. | Total |
|----------------|------|------|-----|--------|------|------|-------|
| Pteridophyta   | 10   | 21   | 34  | -      | 1    | -    | 35    |
| Gymnospermae   | 3    | 5    | 6   | -      | -    | -    | 6     |
| Angiospermae   |      |      |     |        |      |      |       |
| Dicotyledons   | 76   | 204  | 284 | 1      | 36   | 2    | 323   |
| Monocotyledons | 11   | 68   | 103 | -      | 15   | 1    | 119   |
| Total          | 100  | 298  | 427 | 1      | 52   | 3    | 483   |

**Table 3.** The list of the Korean endemic plants

|               |  |        |
|---------------|--|--------|
| Ranunculaceae | <i>Hepatica insularis</i> Nakai              | 새끼노루귀  |
| Euphorbiaceae | <i>Glochidion chodoense</i> J.S.Lee & H.T.Im | 조도만두나무 |
| Liliaceae     | <i>Hosta yingeri</i> S.B.Jones               | 흑산도비비추 |
| 3 taxa        |  |        |



**Table 4.** List of the rare and endangered plants which was designated by Korea Forest Service

| Family name   | Scientific name                                    | Common name | Degree |
|---------------|--|-------------|--------|
| Euphorbiaceae | <i>Glochidion chodoense</i> J.S.Lee & H.T.Im       | 조도만두나무      |        |
| Orchidaceae   | <i>Bulbophyllum drymoglossum</i> Maxim. ex Okub.   | 콩짜개란        | CR     |
| Orchidaceae   | <i>Dendrobium moniliforme</i> (L.) Sw.             | 석곡          |        |
| Liliaceae     | <i>Hosta yingeri</i> S.B.Jones                     | 흑산도비비추      | EN     |
| Orchidaceae   | <i>Bulbophyllum inconspicuum</i> Maxim.            | 흑난초         |        |
| Polypodiaceae | <i>Pyrrhosia hastata</i> (Thunb. ex Houtt.) Ching  | 세뿔석위        |        |
| Leguminosae   | <i>Millettia japonica</i> (Siebold & Zucc.) A.Gray | 애기등         | VU     |
| Malvaceae     | <i>Hibiscus hamabo</i> Siebold & Zucc.(식재)         | 황근          |        |
| Myrsinaceae   | <i>Ardisia crenata</i> Sims                        | 백랑금         |        |
| Polypodiaceae | <i>Crypsinus hastatus</i> (Thunb.) Copel.          | 고란초         |        |
| Cupressaceae  | <i>Thuja orientalis</i> L.(식재)                     | 측백나무        | LC     |
| Ulmaceae      | <i>Celtis chosieniana</i> Nakai                    | 검팽나무        |        |

12 taxa



**Fig. 3.** A. *Kadsura japonica* (L.) Dunal (III), B. *Litsea japonica* (Thunb.) Juss. (III), C. *Stauntonia hexaphylla* (Thunb.) Decne. (III), D. *Arachniodes aristata* (G.Forst.) Tindale (IV)

*incana*, *Potentilla dickinsii*, etc.), and 59 taxa of 1st degree (e.g., *Mallotus japonicus*, *Lemmaphyllum microphyllum*, *Chloranthus fortunei*, etc.) (Fig. 3, Table 5). *Sageretia theezans*, 3rd degree taxa, was distributed along the boulder stone areas around the top of Mt. Songarak. *Dendrobium moniliforme*, which had previously surveyed in Mt. Singeum across the Hajodo Elementary school (Kim *et al.* 1984), was collected from the similar place.

**Naturalized plants**

The naturalized plants identified in the research area were recorded as total 31 taxa, 13 families, 23 genera, 30 species, and 1 variety, such as *Anthriscus caucalis*, *Coreopsis tinctoria*, *Bromus unioloides*, etc. This accounts for 6.4% of the total recorded taxa in this study. Of those naturalized plants, Compositae showed the highest appearance ratio with 12 taxa, accounting for 38.7%, followed by Canopodiaceae and Cruciferae with 3 taxa, respectively (Fig. 4. Table 6).

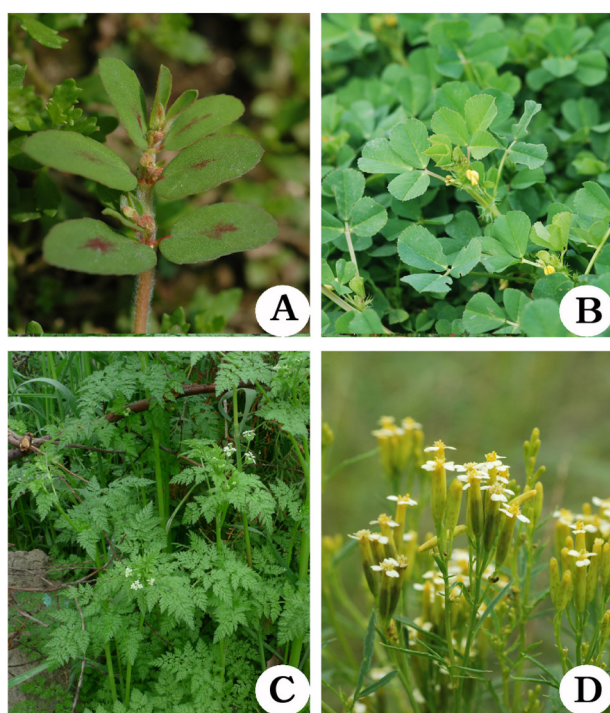
As the abandoned fields and paddies have increased in island areas due to the decrease and ageing of the population, the farmland has become fallow lands and isolated from human interference. Also, the soil has become relatively more eutrophicated than that of other island areas. Such environmental conditions can make the

**Table 5.** The list of 5th to 3rd degree taxa of specially designated plants by the Ministry of Environment

| Degree | Scientific name / Korea name  | Total |
|--------|---|-------|
| V      | <i>Crypsinus hastatus</i> (Thunb.) Copel. 고란초, <i>Millettia japonica</i> (Siebold & Zucc.) A.Gray 애기등, <i>Hibiscus hamabo</i> Siebold & Zucc. 황근(식재), <i>Bulbophyllum drymoglossum</i> Maxim. ex Okub. 콩짜개란, <i>Bulbophyllum inconspicuum</i> Maxim. 흑난초, <i>Dendrobium moniliforme</i> (L.) Sw. 석곡   | 6     |
| IV     | <i>Arachniodes aristata</i> (G.Forst.) Tindale 가느쇠고사리, <i>Thuja orientalis</i> L. 측백나무(식재), <i>Glochidion chodoense</i> J.S.Lee & H.T.Im 조도만두나무, <i>Sigesbeckia orientalis</i> L. 제주진득찰, <i>Hosta yingeri</i> S.B.Jones 흑산도비비추  | 5     |
| III    | <i>Juniperus chinensis</i> L. 향나무, <i>Boehmeria nivea</i> var. <i>nippononivea</i> (Koidz.) W.T.Wang 섬모시골, <i>Kadsura japonica</i> (L.) Dunal 남오미자, <i>Cinnamomum japonicum</i> Siebold ex Nees 생달나무, <i>Litsea japonica</i> (Thunb.) Juss. 까마귀쪽나무, <i>Machilus japonica</i> Siebold & Zucc. 쉼달나무, <i>Ranunculus franchetii</i> H.Boissieu 왜미나리아재비, <i>Stauntonia hexaphylla</i> (Thunb.) Decne. 멸꿀, <i>Eurya emarginata</i> (Thunb.) Makino 우묵사스레피, <i>Rhaphiolepis indica</i> var. <i>umbellata</i> (Thunb.) Ohashi 다정큼나무, <i>Sageretia theezans</i> (L.) Brongn. 상둥나무, <i>Fatsia japonica</i> (Thunb.) Decne. & Planch. 팔손이, <i>Sanicula tuberculata</i> Maxim. 애기참반디, <i>Vaccinium bracteatum</i> Thunb. 모새나무, <i>Ardisia crenata</i> Sims 백랑금, <i>Callicarpa mollis</i> Siebold & Zucc. 새비나무, <i>Verbena officinalis</i> L. 마편초, <i>Farfugium japonicum</i> (L.) Kitam. 털머위, <i>Aletris spicata</i> (Thunb.) Franch. 쥐꼬리풀, <i>Phaenosperma globosa</i> Munro ex Benth. 산기장 | 20    |

**Table 6.** The list of naturalized plants

| Famaly name      | Scientific name/Korea name   | Total |
|------------------|--|-------|
| Polygonaceae     | <i>Rumex acetosella</i> L. 애기수영, <i>R. nipponicus</i> Franch. & Sav. 좁소리쟁이   | 2     |
| Caryophyllaceae  | <i>Cerastium glomeratum</i> Thuill. 유럽잡나도나물  | 1     |
| Canopodiaceae    | <i>Atriplex hastata</i> L. 창명아주, <i>Chenopodium album</i> L. 흰명아주, <i>C. ambrosioides</i> L. 양명아주  | 3     |
| Amaranthaceae    | <i>Amaranthus viridis</i> L. 청비름, <i>A. hybridus</i> L. 긴털비름   | 2     |
| Cruciferae       | <i>Brassica juncea</i> (L.) Czern. 갓, <i>Lepidium apetalum</i> Willd. 다닥냉이, <i>L. virginicum</i> L. 콩다닥냉이  | 3     |
| Leguminosae      | <i>Medicago polymorpha</i> L. 개자리, <i>Robinia pseudoacacia</i> L. 아까시나무  | 2     |
| Euphorbiaceae    | <i>Euphorbia supina</i> Raf. 애기땅빈대   | 1     |
| Umbelliferae     | <i>Anthriscus caucalis</i> M.Bieb. 유럽전호  | 1     |
| Convolvulaceae   | <i>Cuscuta pentagona</i> Engelm. 미국실새삼   | 1     |
| Solanaceae       | <i>Physalis angulata</i> L.. 땅파리   | 1     |
| Scrophulariaceae | <i>Veronica persica</i> Poir. 큰개불알풀  | 1     |
| Compositae       | <i>Aster subulatus</i> Michx. 비짜루국화, <i>A. subulatus</i> var. <i>sandwicensis</i> A.G.Jones 큰비짜루국화, <i>Coryza bonariensis</i> (L.) Cronquist 실망초, <i>C. canadensis</i> (L.) Cronquist 망초, <i>Coreopsis tinctoria</i> Nutt. 기생초, <i>Erigeron annuus</i> (L.) Pers. 개망초, <i>Senecio vulgaris</i> L.. 개쑥갓, <i>Sonchus asper</i> (L.) Hill 큰방가지똥, <i>S. oleraceus</i> L. 방가지똥, <i>Tagetes mimuta</i> L. 만수국아재비, <i>Taraxacum laevigatum</i> DC. 붉은씨서양민들레, <i>T. officinale</i> Weber 서양민들레 | 12    |
| Gramineae        | <i>Bromus unioloides</i> H.B. & K. 큰이삭풀  | 1     |
| 31 taxa          |  |       |


**Fig. 4.** A. *Euphorbia supina* Raf., B. *Medicago polymorpha* L., C. *Anthriscus caucalis* M.Bieb., D. *Tagetes minuta* L.

naturalized plants settle rapidly in the areas. In addition, as tourists frequently used this area because of particularly well developed mountain trails compared to other islands, *Cerastium glomeratum*, *Brassica juncea*, *Lepidium virginicum*, etc. were sporadically distributed around the

entry of trail in Mt. Songarak. In the future, there might be concern that the habitat of naturalized plants is probably expanded gradually around the abandoned farmlands or trails.

#### Usage types of vascular plants

Based on Lee's (1976) study, the vascular plants in the research site were analyzed by usage types. Of 483 taxa, 277 taxa (57.3%) were found to be used as resource plants, except for unknown usage of 150 taxa (31.1%). Divided by the usage types, the total taxa consisted of esculent plants (E) with 145 taxa (30.0%), fiber plants (F) with 4 taxa (0.8%), medicinal plants (M) with 126 taxa (26.1%), ornamental plants (O) with 60 taxa (12.4%), pasturage plants (P) with 164 taxa (34.0%), industrial resource plants (R) with 3 taxa (0.6%), staining plants (S) with 11 taxa (2.3%), and timber plants (T) with 13 taxa (2.7%) (Table 7, Appendix).

#### Specific plant

About two individuals of *Glochidion chodoense* J.S.Lee & H.T.Im, which were specific plants in this area, grew from Changjeon-ri to Hajodo lighthouse. Except for aforementioned areas, they also grew in the left field of the entry of Sinjeon beach. The plants of *Glochidion* genera, which usually inhabit tropical and subtropical regions in Asia, had never been observed before. It was reported that Jodo was the north side of the distribution of this genera (Lee and Im 1994). The appearance of fruit looked like a flat bread with shape of chrysanthemum flower. Because of its unique

**Table 7.** Usage types of vascular plants in Hajo Island of Jeollanam-do, Korea

|                | E    | F   | M    | O    | P    | R   | S   | T   | U    |
|----------------|------|-----|------|------|------|-----|-----|-----|------|
| Number of taxa | 145  | 4   | 126  | 60   | 164  | 3   | 11  | 13  | 150  |
| Ratio (%)      | 30.0 | 0.8 | 26.1 | 12.4 | 34.0 | 0.6 | 2.3 | 2.7 | 31.1 |

ornamental value, there would be concern of being deteriorated by picking flowers in the future. Thus, it is necessary to conserve this plant out of the site because of its limited distribution.

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<Appendix 1> plants in Hajo Island of Jeollanam-do, Korea

**석송과 Lycopodiaceae**

- Lycopodium clavatum* L. 석송 JJ110609 M
- Lycopodium serratum* Thunb. 뿔톱 N110491 M

**부처손과 Selaginellaceae**

- Selaginella involvens* (Sw.) Spring 바위손 HS110530, JSJ110152 U
- Selaginella tamariscina* (P.Beauv.) Spring 부처손 JSJ110245 M, O

**고사리삼과 Ophioglossaceae**

- Sceptridium ternatum* (Thunb.) Lyon 고사리삼 H110129, JSY110955 M

**풀고사리과 Gleicheniaceae**

- Dicranopteris pedata* (Houtt.) Nakaike 발풀고사리 HS110513, JJ110608 U
- Gleichenia japonica* Spreng. 풀고사리 HS110510 U

**실고사리과 Schizaeaceae**

- Lygodium japonicum* (Thunb.) Sw. 실고사리 JSJ110172 M

**고사리과 Pteridaceae**

- Dennstaedtia wilfordii* (T.Moore) H.Christ 황고사리 JJ111042 U
- Pteridium aquilinum* var. *latiusculum* (Desv.) Underw. ex Hell. 고사리 N110898 E, M
- Sphenomeris chinensis* (L.) Maxon 바위고사리 L110931 U
- Onychium japonicum* (Thunb.) Kunze 선바위고사리 ESJeon91572 U

**넉줄고사리과 Davalliaceae**

- Davallia mariesii* T.Moore ex Baker 넉줄고사리 JSJ110181, JSJ110232 O

**꼬리고사리과 Aspleniaceae**

- Asplenium incisum* Thunb. 꼬리고사리 JSJ110264, L111079 U

**면마과 Dryopteridaceae**

- Arachniodes aristata* (G.Forst.) Tindale 가는쇠고사리 HJK110063, HS110512 U
- Cyrtomium falcatum* (L.f.) C.Presl 도깨비쇠고비 H110165, HJK110070 U
- Cyrtomium fortunei* J.Sm. 쇠고비 HJK110059 M
- Dryopteris bissetiana* (Baker) C.Chr. 산죽제비고사리 HS110494, HS110895 U
- Dryopteris chinensis* (Baker) Koidz. 가는일죽제비고사리 HS110925, L111002 U
- Dryopteris erythrosora* (D.C.Eaton) Kuntze 홍지네고사리 HS110511, JJ110604 U
- Dryopteris hikonenis* (H.Ito) Nakaike 큰죽제비고사리 HJK110062, HS110489 U
- Dryopteris lacera* (Thunb.) Kuntze 비늘고사리 HS110910, L111005 U
- Dryopteris sacrosanta* Koidz. 애기죽제비고사리 BK110163, JSJ110117 U
- Dryopteris saxifraga* H.Ito 바위죽제비고사리 HS110913 U
- Dryopteris uniformis* (Makino) Makino 곰비늘고사리 JJ111051, JSY110953 U
- Thelypteris acuminata* (Houtt.) C.V.Morton 별고사리 JJ111003, JSY110957 U
- Thelypteris angustifrons* (Miq.) Ching 탐라사다리고사리 H110173
- Thelypteris decursivepinnata* (H.C.Hall) Ching 설설고사리 JJ111043, JSJ110168 U
- Thelypteris glanduligera* (Kunze) Ching 사다리고사리 HS110896, HS110905 U
- Deparia japonica* (Thunb.) M.Kato 진고사리 JJ111009, L110998 U

**고란초과 Polypodiaceae**

- Crypsinus hastatus* (Thunb.) Copel. 고란초 JSJ110182 M
- Lemmaphyllum microphyllum* C.Presl 콩짜개덩굴 HS110470, JJ111726 U
- Lepisorus thunbergianus* (Kaulf.) Ching 일엽초 HJK110068 M
- Pyrosia hastata* (Thunb. ex Houtt.) Ching 세뿔석위 JSJ110146 M
- Pyrosia lingua* (Thunb.) Farw. 석위 HS110908 U

**소나무과 Pinaceae**

- Pinus thunbergii* Parl. 곰솔 BK110145, HS110537 T, M, E

**낙우송과 Taxodiaceae**

- Cryptomeria japonica* (L.f.) D.Don 삼나무 HS110517, JJ110607 T

**측백나무과 Cupressaceae**

- Chamaecyparis obtusa* (Siebold & Zucc.) Endl. 편백 JSJ110113, JSY110982 T, O
- Juniperus chinensis* L. 향나무 HS110515 O, M, R
- Juniperus rigida* Siebold & Zucc. 노간주나무 H110128, H110154 M, S
- Thuja orientalis* L. 측백나무 (식재) JJ11024 O, M

**가래나무과 Juglandaceae**

- Platycarya strobilacea* Siebold & Zucc. 굴피나무 JSJ110133, L111025 S

**자작나무과 Betulaceae**

- Alnus firma* Siebold & Zucc. 사방오리 H110161, HS110869 S
- Alnus japonica* (Thunb.) Steud. 오리나무 JSJ110112 P
- Alnus sibirica* Fisch. ex Turcz. 물오리나무 JJ111028 S
- Carpinus laxiflora* (Siebold & Zucc.) Blume 서어나무 JSJ110183 O, S
- Carpinus turczaninowii* Hance 소사나무 HS110532, JJ110610 S

**참나무과 Fagaceae**

- Castanopsis sieboldii* (Makino) Hatus. 구실갓참나무 HJK110056, JJ111041 E, T
- Quercus acuta* Thunb. 붉가시나무 HJK110069, HS110459 T
- Quercus aliena* Blume 갈참나무 JJ111031 E, T, P
- Quercus glauca* Thunb. 종가시나무 JSJ110134 E, T, S
- Quercus serrata* Thunb. ex Murray 졸참나무 H110179, HS110460 E, T, P, M
- Quercus variabilis* Blume 굴참나무 HS110521, L111033 E, T, I, M

**느릅나무과 Ulmaceae**

- Celtis chosentiana* Nakai 검팽나무 HJK110044 E
- Celtis sinensis* Pers. 팽나무 JSJ110111 E, M, P

**뽕나무과 Moraceae**

- Cudrania tricuspidata* (Carr.) Bureau ex Lavalley 꾸지뽕나무 JJ111021 E, P
- Ficus erecta* Thunb. 천선과나무 HJK110051, JSY110984 E, O
- Ficus erecta* var. *sieboldii* (Miq.) King 좁은잎천선과 HJK110032, HS110915 E
- Ficus oxyphylla* Miq. ex Zoll. 모람 JSJ110237, KHB1271769 E
- Morus bombycis* Koidz. 산뽕나무 H110167 E, M, P, S

**삼과 Cannabaceae***Humulus japonicus* Siebold & Zucc. 환삼덩굴 JJ111004 E, P, M**쐨기풀과 Urticaceae***Boehmeria longispica* Steud. 왜모시풀 L110974, L111062 F*Boehmeria nivea* var. *nipponnivea* (Koidz.) W.T.Wang 섬모시풀 HJK110042, HJK110060 F*Boehmeria spicata* (Thunb.) Thunb. 좁깨잎나무 JJ111027, L111004 F**단향과 Santalaceae***Thesium chinense* Turcz. 제비꽃 L110953, L111012 M**마디풀과 Polygonaceae***Persicaria hydropiper* (L.) Spach 여뀌 JSY110959 M, P*Persicaria japonica* (Meisn.) H.Gross ex Nakai 흰꽃여뀌 JSY110354 U*Persicaria lapathifolia* (L.) Gray 흰여뀌 JSY110345 U*Persicaria longiseta* (Brujin) Kitag. 개여뀌 JJ111011 M*Persicaria senticosa* (Meisn.) H.Gross ex Nakai 머느리밀싹개 HJK110087, JSJ110288 E, P*Persicaria thunbergii* (Siebold & Zucc.) H.Gross ex Nakai 고마리 JSY110960 P*Persicaria modosa* Opiz. 큰개여뀌 N110872 P*Rumex acetosella* L. 애기수영 JSJ110131, L111075 E*Rumex japonicus* Houtt. 참소리쟁이 L110952, L111022 E, P*Rumex nipponicus* Franch. & Sav. 좁소리쟁이 JSJ110276*Rumex patientia* L. 부령소리쟁이 JSJ110167, JSJ110286 U**석류풀과 Molluginaceae***Mollugo pentaphylla* L. 석류풀 HJK110045 U**번행초과 Aizoaceae***Tetragonia tetragonoides* (Pall.) Kuntze 번행초 ESJeon91563, H110138 E, M**쇠비름과 Portulacaceae***Portulaca oleracea* L. 쇠비름 N110901 E, M, P**석죽과 Caryophyllaceae***Cerastium glomeratum* Thuill. 유럽점나도나물 H110168, HS110482*Dianthus chinensis* L. 패랭이꽃 JSJ110261 M*Sagina japonica* (Sw.) Ohwi 개미자리 JSY110339, N110495 M*Sagina maxima* A.Gray 큰개미자리 L110954 U*Silene aprica* var. *oldhamiana* (Miq.) C.Y.Wu 갯장구채 JSJ110231 P*Stellaria alsine* var. *undulata* (Thunb.) Ohwi 벼룩나물 JSJ110289, N110481 E*Stellaria aquatica* (L.) Scop. 쇠별꽃 BK110154, HJK110030 E, M*Stellaria media* (L.) Vill. 별꽃 H110153, HS110472 E**명아주과 Chenopodiaceae***Atriplex gmelinii* C.A.Mey. 가는갯논쟁이 N110883 P*Atriplex hastata* L. 창명아주 JSJ110275*Chenopodium album* L. 흰명아주 ESJeon91562, JSY110321 E, P*Chenopodium album* var. *centrorubrum* Makino 명아주 JSY110338 E, P*Chenopodium ambrosioides* L. 양명아주 JSY110348, JSY110962*Suaeda maritima* (L.) Dumort. 해홍나물 N110880 E**비름과 Amaranthaceae***Achyranthes fauriei* H.Lev. & Vaniot 털쇠무릎 JJ111020, N110897*Amaranthus viridis* L. 청비름 HJK110052 E*Amaranthus hybridus* L. 긴털비름 JSJ110271**오미자과 Schisandraceae***Kadsura japonica* (L.) Dunal 남오미자 JJ111022, JSY110954 P**녹나무과 Lauraceae***Cinnamomum japonicum* Siebold ex Nees 생달나무 HJK110035, HS110924 O, T*Lindera erythrocarpa* Makino 비록나무 HJK110053, N110487 O*Lindera obtusiloba* Blume 생강나무 BK110158, HS110520 E, M, O*Litsea japonica* (Thunb.) Juss. 까마귀쪽나무 JSJ110110, JSY110985 O, E*Machilus japonica* Siebold & Zucc. 쉼달나무 JJ111019, JSY110327 O*Machilus thunbergii* Siebold & Zucc. 후박나무 N110458 M, O, T*Neolitsea sericea* (Blume) Koidz. 참식나무 L111013 O**미나리아재비과 Ranunculaceae***Clematis apiifolia* DC. 사위질뽕 JSJ110223, KHB1284340 U*Clematis terniflora* DC. 참으아리 HS110889 M*Hepatica asiatica* Nakai 노루귀 HS110469 O*Hepatica insularis* Nakai 새끼노루귀 JJ110595, JSJ110151 O*Ranunculus cantoniensis* DC. 털개구리미나리 JSY110351 U*Ranunculus franchetii* H.Boissieu 왜미나리아재비 JSJ110196, L110989 U*Ranunculus japonicus* Thunb. 미나리아재비 HS110509, JJ110518 M, P*Semiaquilegia adoxoides* (DC.) Makino 개구리발톱 H110160, JJ110495 U*Thalictrum filamentosum* Maxim. 큰산평의다리 HJK110054 U*Thalictrum filamentosum* var. *tenerum* (Huth) Ohwi 산평의다리 HS110914 M*Thalictrum punctatum* H.Lev. 큰잎산평의다리 JSJ110252, L111018**으름덩굴과 Lardizabalaceae***Akebia quinata* (Houtt.) Decne. 으름덩굴 HS110486, JJ110502 M, P, O*Stauntonia hexaphylla* (Thunb.) Decne. 멸골 HS110903, JSY110969 E, O**새모래덩굴과 Menispermaceae***Cocculus trilobus* (Thunb.) DC. 덩굴이덩굴 L110964 E, M, P*Menispermum dauricum* DC. 새모래덩굴 L111080 U**홀아비꽃대과 Chloranthaceae***Chloranthus fortunei* (A.Gray) Solms 옥녀꽃대 N110490 U*Chloranthus japonicus* Siebold 홀아비꽃대 H110136 U**다래나무과 Actinidiaceae***Actinidia arguta* (Siebold & Zucc.) Planch. ex Miq. 다래 L110985 U



**차나무과 Theaceae**

- Camellia japonica* L. 동백나무 BK110146, HS110464 O, M  
*Eurya emarginata* (Thunb.) Makino 우묵사스레피 HJK110034, HJK110072 U  
*Eurya japonica* Thunb. 사스레피나무 H110169, JJ110603 P

**물레나물과 Guttiferae**

- Hypericum ascyron* L. 물레나물 L111026 E, O  
*Hypericum erectum* Thunb. 고추나물 JJ111006, JSJ110170 M, P  
*Hypericum japonicum* Thunb. 애기고추나물 L111009 U  
*Hypericum laxum* (Blume) Koidz. 좁고추나물 HS110877 U

**현호색과 Fumariaceae**

- Corydalis remota* Fisch. ex Maxim. 현호색 HS110468, JJ110522 M

**십자화과 Cruciferae**

- Brassica juncea* (L.) Czern. 갓 H110182, HS110481 E  
*Brassica napus* L. 유채 BK110157 E  
*Capsella bursapastoris* (L.) L.W.Medicus 냉이 BK110156, H110181 E, M  
*Cardamine fallax* L. 좁쌀냉이 H110171, L110916 E  
*Cardamine flexuosa* With. 황새냉이 JJ110501, JSJ110125 E  
*Lepidium apetalum* Willd. 다닥냉이 JSJ110284 E, M  
*Lepidium virginicum* L. 콩다닥냉이 L111023, N110879  
*Raphanus sativus* var. *hortensis* f. *raphanistroides* Makino 갓무 BK110148, JSJ110283 E  
*Rorippa palustris* (Leyss.) Besser 속속이풀 JSY110369, N110480 E

**돌나물과 Crassulaceae**

- Orostachys japonica* (Maxim.) A.Berger 바위솔 HS110919 M  
*Sedum oryzifolium* Makino 땅채송화 H110142 U  
*Sedum polytrichoides* Hemsl. 바위채송화 JSJ110236, L111032 U

**돈나무과 Pittosporaceae**

- Pittosporum tobira* (Thunb.) W.T.Aiton 돈나무 HJK110073 O

**장미과 Rosaceae**

- Agrimonia pilosa* Ledeb. 짚신나물 HJK110077, L111069 E, M, P  
*Duchesnea indica* (Andr.) Focke 뱀딸기 N110486 E, M, P  
*Geum aleppicum* Jacq. 큰뱀무 L111060 E, P  
*Geum japonicum* Thunb. 뱀무 JJ111026, JSY110966 E, M, P  
*Potentilla dickinsii* Franch. & Sav. 돌양지꽃 JJ110602 U  
*Potentilla fragarioides* var. *major* Maxim. 양지꽃 H110127, H110170 E, M  
*Pourthiaea villosa* (Thunb.) Decne. var. *villosa* 윤노리나무 H110155, HS110922 U  
*Prunus maximowiczii* Rupr. 산개뿔나무 BK110165 U  
*Prunus sargentii* Rehder 산뿔나무 H110147, N110454 O, P  
*Prunus serrulata* var. *pubescens* (Makino) Nakai 잔털뿔나무 H110158 O, E  
*Prunus serrulata* var. *spontanea* (Maxim.) E.H.Wilson 뿔나무 H110166, JJ110503 O, E  
*Rhaphiolepis indica* var. *umbellata* (Thunb.) Ohashi 다정큼나무 H110157, HJK110081 O  
*Rosa maximowicziana* Regel 용가시나무 JSJ110204 E, M  
*Rubus corchorifolius* L.f. 수리딸기 HS110522, JJ110507 E  
*Rubus hirsutus* Thunb. 장딸기 BK110155, JJ110520 E  
*Rubus oldhamii* Miq. 줄딸기 HJK110065 E  
*Rubus parvifolius* L. 명석딸기 JSJ110222, L111021 E  
*Sanguisorba officinalis* L. 오이풀 HJK110033, N110899 M, P  
*Sorbus alnifolia* (Siebold & Zucc.) K.Koch 팔배나무 HS110497, JSJ110137 E, P

**콩과 Leguminosae**

- Aeschynomene indica* L. 자귀풀 JSY110361 U  
*Albizia julibrissin* Durazz. 자귀나무 L111027 M, P, O  
*Caesalpinia decapetala* (Roth) Alston 실거리나무 HJK110061 S  
*Chamaecrista nomame* (Siebold) H.Ohashi 차풀 N110881 E, M, P  
*Dunbaria villosa* (Thunb.) Makino 여우콩 JJ111044, JSY110334  
*Glycine soja* Siebold & Zucc. 돌콩 JSY110347 E, P  
*Indigofera koreana* Ohwi 민땃비싸리 HS110535, JSJ110156 O  
*Kummerowia striata* (Thunb.) Schindl. 매듭풀 HJK110074, L111045 P  
*Lathyrus japonicus* Willd. 갓완두 BK110147, JSJ110154 M  
*Lespedeza bicolor* Turcz. 싸리 JSJ110234 O, P  
*Lespedeza cuneata* G.Don 비수리 HJK110086, HS110911 P  
*Lespedeza cyrtobotrya* Miq. 참싸리 JSY110331, JSY110963 O, F  
*Lespedeza maximowiczii* C.K.Schneid. 조록싸리 KHB1284338, KHB1284339 O, P  
*Lespedeza pilosa* (Thunb.) Siebold & Zucc. 팽이싸리 HS110890, HS110907 P  
*Lespedeza virgata* (Thunb.) DC. 좁싸리 JSJ110173, JSJ110224 O, P  
*Lotus corniculatus* var. *japonica* Regel 별노랑이 N110884 P, M  
*Maackia amurensis* Rupr. & Maxim. 다릅나무 HS110897 T  
*Medicago polymorpha* L. 개자리 H110133, JJ110617 P  
*Milletia japonica* (Siebold & Zucc.) A.Gray 애기등 JJ111035, JSY110946 O  
*Rhynchosia acuminatifolia* Makino 큰여우콩 L111014 P  
*Rhynchosia volubilis* Lour. 여우콩 JJ110611, JSY110964 U  
*Robinia pseudoacacia* L. 아까시나무 L110971 T, P  
*Vicia angustifolia* var. *segetilis* (Thuill.) K.Koch. 살갈퀴 H110183, JJ110498 E, P  
*Vicia tetrasperma* (L.) Schreb. 얼치기완두 HS110514, JSJ110121 P  
*Vigna angularis* (Willd.) Ohwi & H.Ohashi 팔 JSY110353 E  
*Vigna vexillata* var. *tsusimensis* Matsum. 돌등부 HJK110049 E, P

**괘이밥과 Oxalidaceae**

- Oxalis corniculata* L. 괘이밥 HS110479, JSY110325 E, M

**귀손이풀과 Geraniaceae**

- Geranium thunbergii* Siebold & Zucc. 이질풀 JJ111033, JSY110356 M, P

**대극과 Euphorbiaceae**

- Acalypha australis* L. 깨풀 JSY110349, N110902 E

*Euphorbia esula* L. 흰대극 H110135, L111086 M  
*Euphorbia helioscopia* L. 등대풀 H110144 M  
*Euphorbia pekinensis* Rupr. 대극 JSJ110176 M, P  
*Euphorbia supina* Raf. 애기땅빈대 N110903 U  
*Glochidion chodoense* J.S.Lee & H.T.Im 조도만두나무 ESJeon91558, HJK110048  
*Mallotus japonicus* (Thunb.) Muell. Arg. 예덕나무 L110979, L111037 M

**윤향과 Rutaceae**

*Zanthoxylum schinifolium* Siebold & Zucc. 산초나무 JSJ110227 E

**원지과 Polygalaceae**

*Polygala japonica* Houtt. 애기풀 HS110492 E, M

**웃나무과 Anacardiaceae**

*Rhus javanica* L. 홉나무 HS110875, JSJ110166 E, M, R  
*Rhus sylvestris* Siebold & Zucc. 산검양웃나무 JSY110978 U

**나도밤나무과 Sabiaceae**

*Meliosma myriantha* Siebold & Zucc. 나도밤나무 HS110921 U

**노박덩굴과 Celastraceae**

*Celastrus orbiculatus* Thunb. 노박덩굴 HS110936, JSY110975 E, O, R  
*Euonymus alatus* (Thunb.) Siebold 화살나무 JSJ110266 E, M, P  
*Euonymus fortunei* var. *radicans* (Miq.) Rehder 줄사철나무 H110139 O  
*Euonymus japonicus* Thunb. 사철나무 HJK110088 O

**고추나무과 Staphyleaceae**

*Euscaphis japonica* (Thunb.) Kanitz 말오줌때 JSJ110191 U

**회양목과 Buxaceae**

*Buxus koreana* Nakai ex Chung & al. 회양목 HS110496 M, O

**갈매나무과 Rhamnaceae**

*Rhamnella franguloides* (Maxim.) Weberb. 까마귀베개 HS110927 U  
*Sageretia theezans* (L.) Brongn. 상동나무 ESJeon91615, HS110526 E

**포도과 Vitaceae**

*Ampelopsis brevipedunculata* (Maxim.) Trautv. 개머루 JJ111036, JSY110986 U  
*Ampelopsis brevipedunculata* f. *citrulloides* Rehder 가새잎개머루 JSY110322 U  
*Cayratia japonica* (Thunb.) Gagnep. 거지덩굴 HJK110050, L110980 M  
*Parthenocissus tricuspidata* (Siebold & Zucc.) Planch. 담쟁이덩굴 JJ111047 O, P  
*Vitis amurensis* Rupr. 왕머루 L110961 E, M, P  
*Vitis ficifolia* var. *sinuata* (Regel) H. Hara 까마귀머루 JSJ110241, L110941 E, P

**피나무과 Tiliaceae**

*Corchoropsis tomentosa* (Thunb.) Makino 수까치개 JJ111034 U  
*Grewia parviflora* Bunge 장구밥나무 JSJ110145, JSJ110246 E, P

**아욱과 Malvaceae**

*Hibiscus hamabo* Siebold & Zucc. 황근(식재) JSY110999

**보리수나무과 Elaeagnaceae**

*Elaeagnus macrophylla* Thunb. 보리밥나무 H110176, HJK110066 E, P  
*Elaeagnus umbellata* Thunb. 보리수나무 HS110484, JSJ110279 E, P

**제비꽃과 Violaceae**

*Viola albida* var. *chaerophylloides* (Regel) F.Maek. ex Hara 남산제비꽃 JJ110523, N110461 U  
*Viola collina* Besser 등근털제비꽃 JJ110618 U  
*Viola grypoceras* A.Gray 뉘시제비꽃 JJ110500, JJ110625 U  
*Viola mandshurica* W.Becker 제비꽃 JSJ110120, L110956 M, E, P  
*Viola ovato-oblonga* (Miq.) Makino 긴잎제비꽃 L110957, N110512 U  
*Viola patrinii* DC. ex Ging. 흰제비꽃 L111055 U  
*Viola yedoensis* Makino 호제비꽃 JJ110619 U

**부처꽃과 Lythraceae**

*Lythrum salicaria* L. 털부처꽃 JSJ110193 O

**바늘꽃과 Onagraceae**

*Ludwigia prostrata* Roxb. 여귀바늘 JSY110344 U

**층층나무과 Cornaceae**

*Cornus kousa* F.Buenger ex Miquel 산딸나무 JSJ110253

**두릅나무과 Araliaceae**

*Fatsia japonica* (Thunb.) Decne. & Planch. 팔손이 H110151, JSJ110282 O, M  
*Hedera rhombea* (Miq.) Bean 송악 H110132, HS110498 M, O, P

**산형과 Umbelliferae**

*Angelica decursiva* (Miq.) Franch. & Sav. 바다나물 HS110881 E, M  
*Anthriscus caucalis* M.Bieb. 유럽전호 HS110507  
*Hydrocotyle maritima* Honda 선피막이 JSY110328, L111042 M  
*Ostericum grosseserratum* (Maxim.) Kitag. 신감채 JJ111029 P  
*Peucedanum terebinthaceum* (Fisch.) Fisch. ex DC. 기름나물 HJK110091, HS110876 E  
*Sanicula chinensis* Bunge 참반디 HS110935 E, M  
*Sanicula tuberculata* Maxim. 애기참반디 N110477 P  
*Siium ninsi* L. 감자개발나물 HS110880, JJ111015 U  
*Torilis japonica* (Houtt.) DC. 사상자 JSJ110220, L111020 M

**노루발과 Pyrolaceae**

*Pyrola japonica* Klentze ex Alef. 노루발 L110967, N110470 M

**진달래과 Ericaceae**

*Rhododendron mucronulatum* var. *ciliatum* Nakai 털진달래 JSJ110208 O  
*Rhododendron mucronulatum* Turcz. 진달래 H110174, JJ110512 O, E  
*Rhododendron yedoense* f. *poukhanense* (H.Lev.) M.Sugim. ex T.Yamaz. 산철쭉 BK110160, HS110485 O  
*Vaccinium bracteatum* Thunb. 모새나무 JSJ110177, L111050 E  
*Vaccinium oldhamii* Miq. 정글나무 HS110871, JSJ110206 E

**자금우과 Myrsinaceae**

*Ardisia crenata* Sims 백량금 JSJ110184 O  
*Ardisia japonica* (Thunb.) Blume 자금우 HS110884, JJ110508 O

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**앵초과 Primulaceae**

*Lysimachia barystachys* Bunge 까치수염 L110933, L111040 E  
*Lysimachia mauritiana* Lam. 갯까치수염 JSJ110278, L110938 U

**갯질경과 Plumbaginaceae**

*Limonium tetragonum* (Thunb.) Bullock 갯질경 N110876 E

**매죽나무과 Styracaceae**

*Styrax japonicus* Siebold & Zucc. 매죽나무 JSJ110263 O, P

**노린재나무과 Symplocaceae**

*Symplocos tanakana* Nakai 검노린재나무 JSJ110225, L111028 U

**물푸레나무과 Oleaceae**

*Fraxinus rhynchophylla* Hance 물푸레나무 HS110934 M, P  
*Fraxinus sieboldiana* Blume 쇠물푸레나무 HS110461, JSJ110138 M  
*Ligustrum japonicum* Thunb. 광나무 ESJeon91570, JSJ110226  
*Ligustrum obtusifolium* Siebold & Zucc. 쥐똥나무 JJ111013, JSJ110207 M

**용담과 Gentianaceae**

*Gentiana squarrosa* Ledeb. 구슬봉이 JJ110613 U  
*Gentiana zollingeri* Faw. 큰구슬봉이 HS110476, N110515 U

**협죽도과 Apocynaceae**

*Trachelospermum asiaticum* (Siebold & Zucc.) Nakai 마삭줄 JSJ110136, L110977 M, P  
*Trachelospermum jasminoides* var. *pubescens* Makino 털마삭줄 KHB1271771, KHB1271773 M, P

**박주가리과 Asclepiadaceae**

*Cynanchum paniculatum* (Bunge) Kitag. 산해박 HS110882, L110958 M  
*Metaplexis japonica* (Thunb.) Makino 박주가리 L110960 E, M, P

**꼭두서니과 Rubiaceae**

*Galium pogonanthum* Franch. & Sav. 산갈퀴 JJ111025, L110978 U  
*Galium spurium* var. *echinospermon* (Wallr.) Hayek 갈퀴덩굴 HS110465, JJ110496 E, M  
*Galium verum* var. *asiaticum* Nakai 솔나물 JSJ110202, N110895 P  
*Paederia scandens* (Lour.) Merr. 계요등 JSJ110199, N110888 M  
*Paederia scandens* var. *angustifolia* (Nakai) T.B.Lee 좁은일계요등 JSJ110239, L110969

**메꽃과 Convolvulaceae**

*Calystegia soldanella* (L.) Roem. & Schultb. 메꽃 L110935 U  
*Cuscuta pentagona* Engelm. 미국실새삼 JSY110362

**지치과 Boraginaceae**

*Bothriospermum tenellum* (Hornem.) Fisch. & C.A.Mey. 꽃받이 N110494 U  
*Lithospermum zollingeri* A.DC. 반디지치 HS110475, JJ110516 U  
*Trigonotis peduncularis* (Trevir.) Benth. ex Hemsl. 꽃마리 HS110480, JJ110627 E

**마편초과 Verbenaceae**

*Callicarpa japonica* Thunb. 작살나무 HS110904 O  
*Callicarpa mollis* Siebold & Zucc. 새비나무 JJ111016, JSJ110249 O  
*Caryopteris incana* (Thunb.) Miq. 층꽃나무 HS110870 O  
*Clerodendrum trichotomum* Thunb. 누리장나무 JSJ110272 E, M, P  
*Verbena officinalis* L. 마편초 L111024, N110909 M

**풀풀과 Labiatae**

*Ajuga decumbens* Thunb. 금창초 HS110503, JSJ110115 M  
*Clinopodium chinense* var. *parviflorum* (Kudo) Hara 층층이꽃 ESJeon91619, JJ111032 E  
*Isodon inflexus* (Thunb.) Kudo 산박하 HJK110084, JSJ110179 E  
*Lamium amplexicaule* L. 광대나물 BK110152, H110162 E  
*Leonurus japonicus* Houtt. 익모초 HJK110075, JSY110968 M  
*Lycopus maackianus* (Maxim. ex Herder) Makino 애기썩싸리 HS110891, JSY110961 U  
*Lycopus ramosissimus* (Makino) Makino 개썩싸리 L111044 U  
*Mosla chinensis* Maxim. 가는잎산들개 HS110899 U  
*Scutellaria indica* L. 골무꽃 HS110500, JJ111037 M  
*Scutellaria pekinensis* var. *transitra* (Makino) Hara 산골무꽃 HS110506 U  
*Teucrium viscidium* var. *miquelianum* (Maxim.) Hara 덩굴곽향 JSJ110260 U  
*Prunella pinnatifida* Benth. 갈래풀 JSJ110174, L110981

**가지과 Solanaceae**

*Physalis angulata* L. 땅파리 HJK110058 O  
*Solanum lyratum* Thunb. 배풍등 HJK110089, L110940 U  
*Solanum nigrum* L. 까마중 HJK110029 E, M, P

**현삼과 Scrophulariaceae**

*Mazus pumilus* (Burm.f.) Steenis 주름잎 JJ110614, L110921 E  
*Melampyrum roseum* var. *japonicum* Franch. & Sav. 수염머느리밥풀 HJK110085, L111081 U  
*Melampyrum roseum* var. *ovalifolium* Nakai ex Beauverd 알머느리밥풀 ESJeon91578 U  
*Veronica persica* Poir. 큰개불알풀 H110163, JJ110599 U

**취꼬리망초과 Acanthaceae**

*Justicia procumbens* L. 취꼬리망초 HS110868 M, P

**파리풀과 Phrymaceae**

*Phryma leptostachya* var. *asiatica* H. Hara 파리풀 L111070 M

**질경이과 Plantaginaceae**

*Plantago asiatica* L. 질경이 HJK110078, JSJ110219 E, M, P

**인동과 Caprifoliaceae**

*Lonicera harai* Makino 길마가지나무 HS110466, JSJ110140 U  
*Lonicera japonica* Thunb. 인동덩굴 JSJ110201  
*Lonicera japonica* var. *repens* (Siebold) Rehder 털인동 JJ111005, L110932 M, P  
*Sambucus sieboldiana* var. *miquelii* (Nakai) Hara 지령나무 N110452 E, M, P  
*Viburnum carlesii* Hemsl. 분꽃나무 H110148, JJ110521 U  
*Viburnum erosum* Thunb. 털꿩나무 H110164, JJ111012 P  
*Viburnum wrightii* Miq. 산가막살나무 L111019 O

**마타리과 Valerianaceae**

*Patrinia scabiosaeifolia* Fisch. ex Trevir. 마타리 HS110873, JSJ110175 E, M, P

*Patrinia villosa* (Thunb.) Juss. 쪽갈 HS110886 E

#### 초롱꽃과 Campanulaceae

*Adenophora stricta* Miq. 당잔대 ESJeon91576 E

*Codonopsis lanceolata* (Siebold & Zucc.) Trautv. 더덕 HS110488 E, M, P

*Platycodon grandiflorum* (Jacq.) A.DC. 도라지 HS110872, JSJ110180 M, O

#### 국화과 Compositae

*Artemisia japonica* Thunb. 제비쭉 JJ111007, L110996 E, P

*Artemisia princeps* Pamp. 쑥 JSY110329 U

*Aster ageratoides* Turcz. 까실쑥부쟁이 ESJeon91571, HS110909 U

*Aster hispidus* Thunb. 갯쑥부쟁이 JSY110364 E, M

*Aster meyerendorffii* (Regel & Maack) Voss 개쑥부쟁이 JSJ110230, JSY110971 U

*Aster scaber* Thunb. 참취 HJK110076, JSJ110211 E, P

*Aster sphathulifolius* Maxim. 해국 HS110508, JSJ110287 U

*Aster subulatus* Michx. 비짜루국화 N110874

*Aster subulatus* var. *sandwicensis* A.G.Jones 큰비짜루국화 N110882

*Attractylodes ovata* (Thunb.) DC. 삼주 JSJ110258, L110937 E, M, P

*Bidens bipinnata* L. 도깨비바늘 JSY110342 E, M, P

*Carpesium divaricatum* Siebold & Zucc. 긴담배풀 HS110916, JJ111038 E, M

*Centipeda minima* (L.) A.Br. & Asch. 중대가리풀 HJK110046 P

*Cirsium japonicum* var. *maackii* (Maxim.) Matsum. 영경귀 L111046, L111083 E, M, P

*Cirsium japonicum* var. *spinosissimum* Kitam. 가시영경귀 ESJeon91616 P

*Conyza bonariensis* (L.) Cronquist 실망초 L111074 U

*Conyza canadensis* (L.) Cronquist 망초 JSJ110194, JSY110324 E

*Coreopsis tinctoria* Nutt. 기생초 JSY110320 O

*Crepidiastrum denticulatum* (Houtt.) Pak & Kawano 이고들빼기 HJK110082 E, P

*Dendranthema boreale* (Makino) Ling ex Kitam. 산국 HS110928 M, P

*Dendranthema indicum* (L.) DesMoul. 감국 ESJeon91617 E, M, P

*Eclipta prostrata* (L.) L. 한련초 JSY110317 M

*Erigeron annuus* (L.) Pers. 개망초 HS110937, JJ111023 E

*Eupatorium lindleyanum* DC. 골동골나물 HS110874 E, P

*Eupatorium makinoi* var. *oppisitifolium* (Koidz.) Kawahara & Yahara 벌등골나물 L111007, N110887 E, P

*Farfugium japonicum* (L.) Kitam. 털머위 ESJeon91567, HJK110090 M, P

*Gnaphalium affine* D.Don 떡쑥 ESJeon91564, H110185 E, M

*Gnaphalium japonicum* Thunb. 풀쑥나물 HS110888, JSJ110210 E

*Inula britannica* var. *japonica* (Thunb.) Franch. & Sav. 금불초 JSY110350 E, M, P

*Ixeris chinensis* (Thunb.) Nakai 노랑선쑥마귀 N110489

*Ixeris debilis* (Thunb.) A.Gray 벌음쑥마귀 JSJ110274 E, P

*Ixeris strigosa* (H.Lev. & Vaniot) J.H.Pak & Kawano 선쑥마귀 JSJ110124 E, P

*Lactuca indica* L. 왕고들빼기 JSY110371 E, M, P

*Lactuca triangulata* Maxim. 두메고들빼기 HJK110055 P

*Leibnitzia anandria* (L.) Turcz. 솜나물 JJ110519 E, P

*Petasites japonicus* (Siebold & Zucc.) Maxim. 머위 H110130, JSY110323 E, M, P

*Saussurea japonica* (Thunb.) DC. 큰각시취 L110984 P

*Senecio vulgaris* L. 개쑥갓 BK110153, H110188 U

*Serratula coronata* var. *insularis* (Iljin) Kitam. 산비장이 HS110918, JJ111017 E

*Sigesbeckia orientalis* L. 제주진득찰 ESJeon91561 P

*Sigesbeckia pubescens* (Makino) Makino 털진득찰 HJK110040, N110900 M, P

*Solidago virgaurea* subsp. *asiatica* Kitam. ex Hara 미역취 HS110926 E, M

*Sonchus asper* (L.) Hill 큰방가지뚱 HS110487 P

*Sonchus oleraceus* L. 방가지뚱 BK110149, H110146 E, P

*Tagetes minuta* L. 만수국아재비 JSY110368

*Taraxacum laevigatum* DC. 붉은씨서양민들레 H110184

*Taraxacum mongolicum* Hand.-Mazz. 털민들레 JJ110623 E

*Taraxacum officinale* Weber 서양민들레 H110131, JJ110596 E

*Taraxacum platycarpum* Dahlst. 민들레 H110145, JJ110505 E, M

*Youngia japonica* (L.) DC. 뽕리뱅이 H110187, JSJ110128 E

#### 백합과 Liliaceae

*Aletris spicata* (Thunb.) Franch. 쥐꼬리풀 JSJ110178 U

*Allium macrostemon* Bunge 산달래 L110951 E, M

*Allium sacculiferum* Maxim. 참산부추 JSY110970 E

*Allium thunbergii* G.Don 산부추 ESJeon91560, HS110887 E

*Asparagus schoberioides* Kunth 비짜루 H110137, HS110467 E

*Disporum smilacinum* A.Gray 애기나리 HS110501, N110478 E, P

*Hemerocallis coreana* Nakai 골잎원추리 L110950 O, E, P

*Hosta longipes* (Franch. & Sav.) Matsum. 비비추 JJ111049 E, P

*Hosta yingeri* S.B.Jones 흑산도비비추 ESJeon91569, ESJeon91574

*Lilium lancifolium* Thunb. 참나리 JSJ110228, L111047 M, E

*Lilium tsingtauense* Gilg 하늘말나리 JSJ110186 E, M, P, O

*Liriope platyphylla* F.T.Wang & T.Tang 맥문동 JSJ110243 M, P

*Liriope spicata* (Thunb.) Lour. 개맥문동 JJ111050 M, P

*Polygonatum cryptanthum* H.Lev. & Vaniot 목포용동굴레 L110943 E, P

*Polygonatum falcatum* A.Gray 진황정 H110134, L110913 M, E

*Polygonatum involucreatum* (Franch. & Sav.) Maxim. 용동굴레 BK110164, L110908 E, P

*Polygonatum lasianthum* Maxim. 죽대 HS110920, L111016 M

*Polygonatum odoratum* var. *pluriflorum* (Miq.) Ohwi 동굴레 H110143, L111038 E, P

*Scilla scilloides* (Lindl.) Druce 무릇 N110889 E

*Smilax china* L. 청미래덩굴 BK110159, H110172 M, E, P

*Smilax sieboldii* f. *intermis* (Nakai) Hara 민청가시덩굴 KHB1284335, KHB1284336 E, P

*Tulipa edulis* (Miq.) Baker 산자고 JJ110524, JJ110612 U



**마과 Dioscoreaceae**

- Dioscorea batatas* Decne. 마 JJ111014 M, E, P  
*Dioscorea nipponica* Makino 부채마 N110896 O, P  
*Dioscorea quinqueloba* Thunb. 단풍마 HS110906 P

**물옥잠과 Pontederiaceae**

- Monochoria vaginalis* var. *plantaginea* (Roxb.) Solms 물달개비 JSY110359 U

**붓꽃과 Iridaceae**

- Iris rossii* Baker 각시붓꽃 BK110162, H110156 O, P

**골풀과 Juncaceae**

- Juncus alatus* Franch. & Sav. 날개골풀 L111041 U  
*Juncus gracillimus* (Buchenau) V.I.Krecz. & Gontsch. 물골풀 JSJ110217, L110949 U  
*Juncus tenuis* Willd. 길골풀 L110975  
*Luzula capitata* (Miq.) Miq. 평의밥 H110177, JJ110494 U

**닭의장풀과 Commelinaceae**

- Commelina communis* L. 닭의장풀 HS110917, JSJ110238 M, E, P

**벼과 Gramineae**

- Agropyron ciliare* (Trin.) Franch. 속털개밀 JSJ110214, L110990 P  
*Agropyron tsukushiense* var. *transiens* (Hack.) Ohwi 개밀 JSJ110292 P  
*Alopecurus aequalis* Sobol. 뚝새풀 BK110151, N110483 P  
*Arthraxon hispidus* (Thunb.) Makino 조개풀 JSY110365 P  
*Arundinella hirta* (Thunb.) Koidz. 새 HS110892 P  
*Arundinella hirta* var. *ciliata* Koidz. 털새 HS110901, JSJ110233  
*Arundinella hirta* var. *hondana* Koidz. 이삭털새 HJK110080, JJ111030  
*Bothriochloa ischaemum* (L.) Keng 바랭이새 JSJ110187 P  
*Brachypodium sylvaticum* (Huds.) P.Beauv. 숲개밀 JJ111052, L111015 P  
*Bromus pauciflorus* (Thunb.) Hack. 꼬리새 JJ111053, L110973 P  
*Bromus unioloides* H.B. & K. 큰이삭풀 HJK110041  
*Calamagrostis arundinacea* (L.) Roth 실새풀 HS110933 P  
*Capillipedium parviflorum* (R.Br.) Stapf 나도기름새 HS110894 P  
*Cleistogenes hackelii* (Honda) Honda 대새풀 HS110883 P  
*Digitaria ciliaris* (Retz.) Koel. 바랭이 JSJ110267, JSY110319  
*Echinochloa crusgalli* (L.) P.Beauv. 들피 JSY110318, L111058 E, S  
*Echinochloa crusgalli* var. *oryzicola* (Vasinger) Ohwi 물피 JSY110357 E, P  
*Eleusine indica* (L.) Gaertn. 왕바랭이 JSY110336 P  
*Elymus dahuricus* Turcz. ex Griseb. 갯보리 JSJ110291 U  
*Eragrostis ferruginea* (Thunb.) P.Beauv. 그렁 JSY110355 P  
*Eragrostis pilosa* (L.) P.Beauv. 큰비노리 JSY110352 P  
*Imperata cylindrica* var. *koenigii* (Retz.) Pilg. 띪 JSJ110221, JSY110373 E  
*Isachne globosa* (Thunb.) Kuntze 기장대풀 L110968, L111043 P  
*Ischaemum crassipes* (Steud.) Thell. 쇠보리 JSJ110290 P  
*Koeleria cristata* (L.) Pers. 도랭이피 JSJ110257, L110945 P  
*Microstegium vimineum* (Trin.) A.Camus 나도바랭이새 JSJ110244 P  
*Microstegium vimineum* var. *imberbe* (Nees ex Steud.) Honda 큰듬성이삭새 JSY110958  
*Miscanthus sinensis* Andersson 참억새 JSY110341, N110906 S, M  
*Miscanthus sinensis* var. *purpurascens* (Andersson) Rendle 억새 HS110902 P  
*Oplismenus undulatifolius* (Ard.) P.Beauv. 주름조개풀 HS110879, JJ111000 P  
*Paspalum thunbergii* Kunth ex Steud. 참새피 HJK110047, HS110878 P, M  
*Pennisetum alopecuroides* (L.) Spreng. 수크렁 JSY110372 P  
*Phaenosperma globosa* Munro ex Benth. 산기장 HJK110057, JSJ110270 P  
*Phragmites communis* Trin. 갈대 JSY110358, N110886 P, M  
*Poa acroleuca* Steud. 실포아풀 HS110504, L110912 P  
*Poa annua* L. 새포아풀 BK110166, H110178 P  
*Polypogon fugax* Nees ex Steud. 쇠물피 JSJ110285 P  
*Sasa borealis* (Hack.) Makino 조릿대 HJK110064 E, P, M  
*Setaria chondrachne* (Steud.) Honda 조아재비 HJK110067 P  
*Setaria faberii* Herrm. 가을강아지풀 JSY110337 P  
*Setaria glauca* (L.) P.Beauv. 금강아지풀 N110893 P  
*Setaria x pycnocoma* (Steud.) Henrard ex Nakai 수강아지풀 JSJ110273 P  
*Setaria viridis* (L.) P.Beauv. 강아지풀 JSJ110212 P  
*Setaria viridis* var. *pachystachys* (Franch. & Sav.) Makino & Nemoto 갯강아지풀 JSJ110255 P  
*Spodipogon cotulifer* (Thunb.) Hack. 기름새 HS110931 P  
*Spodipogon sibiricus* Trin. 큰기름새 HS110893, HS110929 P  
*Sporobolus fertilis* (Steud.) Clayton 쥐꼬리새풀 HJK110071 P  
*Themeda triandra* var. *japonica* (Willd.) Makino 솔새 JSJ110195, JSJ110248 P  
*Trisetum bifidum* (Thunb.) Ohwi 잠자리피 HS110923 P  
*Zoysia japonica* Steud. 잔디 L111056 O

**천남성과 Araceae**

- Pinellia ternata* (Thunb.) Breitenb. 반하 JSY110332 M

**개구리밥과 Lemnaceae**

- Spirodela polyrrhiza* (L.) Sch. 개구리밥 JSY110343 M

**사초과 Cyperaceae**

- Carex boottiana* Hook. & Arn. 밀사초 BK110150, N110465 P  
*Carex breviculmis* R.Br. 청사초 H110175, JJ110504 U  
*Carex ciliatmarginata* Nakai 털대사초 JSJ110150 P  
*Carex gibba* Wahlenb. 나도별사초 L111001 P  
*Carex kobomugi* Ohwi 통보리사초 JSJ110160 P  
*Carex lanceolata* Boott 그늘사초 BK110161, H110159 P  
*Carex lenta* D.Don 줄사초 JJ111039, JSY110988 P  
*Carex mitrata* var. *aristata* Ohwi 겨락겨사초 JSJ110122  
*Carex polyschoena* H.Lev. & Vaniot 가지청사초 HS110473, JJ110525 P

- Carex siderosticta* Hance 대사초 N110475 P  
*Carex puberula* Boott 가는청사초 JJ110601  
*Carex tristachya* Thunb. 반들사초 H110180, N110504 P  
*Cyperus cyperoides* (L.) Kuntze 방동사니아재비 JSJ110218, L110991 U  
*Cyperus difformis* L. 알방동사니 JSY110360 U  
*Cyperus haspan* L. 모기방동사니 JSJ110198 U  
*Cyperus iria* L. 참방동사니 HJK110031, HS110885 U  
*Cyperus microiria* Steud. 금방동사니 HJK110039, JSY110333 U  
*Cyperus sanguinolentus* Vahl 방동사니대가리 JSY110370 U  
*Eleocharis wichurae* Boeck. 쯤네모골 L111010  
*Fimbristylis autumnalis* (L.) Roem. & Schult. 애기하늘지기 JJ111048, L110982 U  
*Fimbristylis dichotoma* (L.) Vahl 하늘지기 HS110900 U  
*Fimbristylis ferruginea* var. *sieboldii* (Miq.) Ohwi 갯하늘지기 N110878 U  
*Fimbristylis miliacea* (L.) Vahl 바람하늘지기 HJK110037, JSY110367 U  
*Fimbristylis tristachya* var. *subbispicata* (Nees & Meyen) T.Koyama 풀하늘지기 JJ111046  
*Kyllinga brevifolia* Rottb. 파대가리 JSY110346, L111029 U  
*Lipocarpa microcephala* (R.Br.) Kunth 세대가리 HJK110036 U  
*Scirpus mucronatus* L. 쯤송이고랭이 JSJ110200 U  
*Scirpus triangulatus* Roxb. 송이고랭이 JSJ110216, L111030 U

**난초과 Orchidaceae**

- Bulbophyllum drymoglossum* Maxim. ex Okub. 콩짜개란 KHB1272132 U  
*Bulbophyllum inconspicuum* Maxim. 흑난초 KHB1272133  
*Cymbidium goeringii* (Rchb.f.) Rchb.f. 보춘화 H110126, JJ110621 O  
*Dendrobium moniliforme* (L.) Sw. 석곡 KHB1272131 M, O  
*Epipactis thunbergii* A.Gray 닭의난초 L110930 U  
*Platanthera freynii* Kraenzl. 제비난초 H110152  
*Platanthera mandarinorum* var. *brachycentron* (Franch. & Sav.) Koidz. ex Ohwi 산제비란 JSJ110189, L110988 U  
*Spiranthes sinensis* (Pers.) Ames 타래난초 JSJ110169, L111031 U